AMENDMENTS TO THE CLAIMS

1. (Original) A method for isolating one or more T cells specific for an antigen of interest, comprising:

(a) incubating a sample comprising T cells with said antigen or a derivative thereof;

(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13.

2. (Currently Amended) The method of claim 1, wherein said antigen is a self-antigen, **and wherein said self-antigen is selected from the group consisting of myelin basic protein, proteolipid protein, myelin oligodendrocyte glycoprotein, collagen type II peptides, heat shock protein, MAGE, PSA, CA125, GAD protein, and tumor associated antigen**.

3. (Cancelled)

4. (Original) The method of claim 1, wherein said antigen is an immunodominant epitope of a self-antigen.

5. (Original) The method of claim 4, wherein said immunodominant epitope is selected from the group consisting of residues 83-99 of myelin basic protein and residues 151-170 of myelin basic protein.

6. (Original) The method of claim 1, wherein the cells expressing said first and said second markers are selected using antibodies to said first and second markers, respectively, or optionally a bi-specific antibody which binds both first and second markers in combination with an antibody which binds said second marker.

7. (Currently Amended) The method of claim 6, wherein said first antibody is fluorescently labeled **and said T cell is selected by fluorescent activated cell sorting**.

8. (Cancelled)

9. (Currently Amended) The method of claim 6, wherein said first antibody is conjugated to a magnetic microbead, **and wherein said T cell is selected by magnetic activated cell sorting**.

10. (Cancelled)

11. (Currently Amended) The method of claim 1, wherein said antigen is incubated with said sample **for an interval selected from the group consisting of** 1 to 7 days**, less than 1 day, less than 16 hours, less than 12 hours, less than 8 hours, less than 4 hours, and less than 2 hours**.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Original) A T cell isolated by the method of claim 1.

19. (Original) The method of claim 1 wherein said isolated T cells are T_H1 or T_H2 T cells or a combination thereof.

20. (Currently Amended) A method for quantifying the number of T cells in a sample **derived from a patient**, wherein said T cells are specific for one or more antigens of interest, comprising:

(a) incubating **[[a]] the** sample comprising T cells with said one or more antigens;

(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13; and

(c) determining the number of T cells selected by step (b).

21. (Currently Amended) A method for diagnosing an autoimmune disease in a patient, comprising:

(a) ~~incubating a sample derived from said patient comprising T cells with one or more autoantigens involved in said disease;~~ **quantifying the number of T cells in a sample derived from a patient by the method of claim 20, wherein said antigen is an autoantigen involved in said disease; and**

(b) ~~selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and~~

~~HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13.~~ **comparing the number of T cells with a control.**

22. (Currently Amended) A method for monitoring an autoimmune disease in a patient, comprising:

(a) ~~incubating a sample derived from said patient comprising T cells with one or more autoantigens;~~ **quantifying the number of T cells in a sample derived from a patient by the method of claim 20, wherein said antigen is an autoantigen involved in said disease; and**

(b) ~~selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13; and~~ **comparing the number of T cells with a control.**

~~(c) determining the number of autoreactive T cells selected by step (a).~~

23. (Currently Amended) A method for treating an autoimmune disease in a patient, comprising:

~~(a) incubating a sample derived from said patient comprising T cells with one or more autoantigens;~~ **isolating one or more T cells from said patient by the method of claim 1, wherein said antigen is an autoantigen involved in said disease; and**

~~(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13;~~

~~(c)~~ **(b)** inactivating ~~said selected autoreactive~~ T cells; and

~~(d)~~ **(c)** administering the ~~autoreactive~~ T cells ~~inactivated by step (c)~~ to said patient.

24. (Currently Amended) A method for producing a composition for the treatment of an autoimmune disease in a patient, comprising:

(a) ~~incubating a sample derived from said patient comprising T cells with one or more autoantigens;~~ **isolating one or more T cells from said patient by the method of claim 1, wherein said antigen is an autoantigen involved in said disease; and**

~~(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13; and~~

~~(c)~~ **(b)** inactivating said ~~autoreactive~~ T cells.

25. (Cancelled)

26. (Currently Amended) A composition for the treatment of a patient with an autoimmune disease produced by the method of claim 24 ~~or 25~~.

27. (Cancelled)

28. (Original) A method for isolating one or more nucleic acids encoding one or more T cell receptors, or a portion thereof, wherein said one or more T cell receptors are specific for one or more antigens of interest, comprising:

(a) incubating a sample comprising T cells with said one or more antigens;

(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13;

(c) amplifying said one or more nucleic acids encoding one or more T cell receptors from T cells isolated by step (b) using at least one first primer specific for the variable region of the T cell receptor gene and a second primer specific for the constant region of the T cell receptor gene.

29. (Currently Amended) A method for determining the repertoire of nucleic acids encoding one or more T cell receptors, or a portion thereof, in a patient, wherein said one or more T cell receptors are specific for one or more antigens of interest, comprising:

(a) ~~incubating a sample derived from said patient comprising T cells with said one or more antigens;~~ **isolating one or more nucleic acids by the method of claim 28, wherein said sample is derived from said patient; and**

~~(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13;~~

~~(c) amplifying said one or more nucleic acids encoding one or more T cell receptors from T cells isolated by step (b) using at least one first primer specific for the variable region of the T cell receptor gene and a second primer specific for the constant region of the T cell receptor gene.~~

~~(d)~~ **(b)** determining the nucleotide sequence of said one or more **amplified** nucleic acids ~~amplified by step (c)~~.

30. (Currently Amended) **The method of claim 29, wherein said patient is** ~~A method for determining the repertoire of nucleic acids encoding one or more T cell receptors, or a portion thereof, in~~ an autoimmune patient~~, wherein said one or more T cell receptors are specific for one or more autoantigens of interest, comprising~~:

~~(a) incubating a sample derived from said autoimmune patient comprising T cells with said one or more autoantigens;~~

~~(b) selecting one or more T cells that express one or more first markers selected from the group consisting of CD69, CD4, CD25, CD36 and HLADR and one or more second markers selected from the group consisting of IL-2, IFNγ, and TNFα IL-5 IL-10 and IL-13;~~

~~(c) amplifying said one or more nucleic acids encoding one or more T cell receptors from T cells isolated by step (b) using at least one first primer specific for the variable region of the T cell receptor gene and a second primer specific for the constant region of the T cell receptor gene.~~

~~(d) determining the nucleotide sequence of said one or more nucleic acids amplified by step (c).~~